

REMARKS

These comments are responsive to the Office Action dated July 30, 2007. The Office Action rejected claims 24 and 25 under 35 U.S.C. § 102(b) being anticipated by Sauer et al. (US Pat. No. 5,969,758) and rejected claims 1-3 under 35 U.S.C. § 103(a) as being unpatentable over Fossum et al. (Pat. No. 5,841,126) in view of Sauer, with claim 4 further in view of Koyama et al. (Pat. No. 5,786,713).

Interview

The Examiner is thanked for the telephonic interview with the undersigned on November 28, 2007, at which Supervisory Examiner Ngoc Yen Vu was also present. The differences between the present application and the prior art, particularly the Sauer reference, were discussed with reference to Figures 2 and 3 of the present application. It was agreed that the techniques of the present application differed from what is found in the prior art, at least that prior art as presented so far. Independent claim 24 was also briefly discussed and it was suggested that amending it along the lines that have now been done would help clarify the distinctions over the prior art.

Claims 24, 25, and 28

The Office Action rejected claims 24 and 25 under 35 U.S.C. § 102(b) being anticipated by Sauer et al. (US Pat. No. 5,969,758). Although both the present application and Sauer both present image sensing techniques that use correlated double sampling, it is respectfully submitted that the present invention as embodied in claim 24 includes features that are neither taught nor suggested in Sauer or, as far as is known, in the prior art generally.

These differences are reflected in claim 24, which has been amended somewhat for clarity and its first two elements now read as:

detecting that the first signal is *slewing excessively rapidly* during the *first interval*; and
in response to said detecting, limiting the value of the *reset sample*;

The emphasis is added to highlight some of the differences from Sauer that were discussed above. Further, it should be noted that the last clause of claim 24 reads “abating an error in the luminance signal *for said pixel*” [emphasis added].

As discussed during the interview, Sauer is not concerned with “first interval” and the “reset sample” determined for correlated doubled sampling during this “first interval” of a sampling cycle, but is rather concerned with the second sample taken later during the sampling cycle. Further, Sauer does not detect that a signal is “slewing excessively rapidly”, but instead just looks at the amplitude of the signal and clamps its value so that it can not go to a negative voltage. Additionally, in the cited location Sauer is concerned with “blooming”, which occurs when oversaturation conditions spread to *other, adjacent* pixels, and is not an error in the pixel itself.

Consequently, for at least these reasons, it is respectfully submitted that a rejection of claim 24 and dependent claim 25 under 35 U.S.C. § 102(b) being anticipated by Sauer is not well-founded and should be withdrawn. New independent claim 28 contains many elements similar to claim 24 and is similarly believed allowable.

Claims 1-4 and 27

Claim 1 has also been amended to further highlight its distinctions over the prior art and its last element now reads as:

clamping, by a clamp circuit, at least one signal selected from the sampled signals *during a reset phase* of the correlated double sampler in response to a detecting of at least one over-saturation condition, whereby *image inversion* is at least partially abated.

The emphasis has been added to highlight some of the difference from the prior art that have been discussed above. The “clamping” of claim 1 occurs during the reset phase of the correlated double sampler; in the cited references, the clamping is instead later in the integration period. Additionally, the clamping of claim 1 is to prevent image inversion (where what should be an oversaturated pixel appears dark) in a pixel, whereas the references do not consider image inversion but blooming, where the over saturation of one pixel spreads to other pixel also making them appear to be overexposed.


Consequently, for at least these reasons, it is respectfully submitted that the Office Action’s rejection of claim 1 and dependent claims 2-4 and 27 is not well-founded and should be withdrawn.

Conclusion

Accordingly, it is believed that this application is now in condition for allowance and an early indication of its allowance is solicited. However, if the Examiner has any further matters that need to be resolved, a telephone call to the undersigned would be appreciated.

FILED VIA EFS

Respectfully submitted,



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Date

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